

culture vaccine intradermally can reduce the cost of treatment, but this regimen is not yet popular because it requires technical skill to administer.

J K DUTTA  
Consultant physician

Bhaskar Ganj (B),  
Balasore 756 001,  
Orissa, India

T K DUTTA  
Professor

Department of Medicine,  
Jawahar Institute of Postgraduate Medical Education and Research,  
Pondicherry, India

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## Traditional Chinese medicine for eczema

### *Seemingly effective, but caution must prevail*

Chinese medicines have produced impressive responses in cases of atopic eczema that have proved resistant to conventional treatment.<sup>1,2</sup> But with their increased popularity has come fears about their toxicity, together with uncertainty about what they contain.

The treatment involves taking a "tea" prepared from a decoction of plant materials. Usually 10 or so plant materials are included, and each prescription is tailored to the individual patient. Although the constituents and amounts of plant material may differ in many of these remedies, placebo controlled trials have been performed with a specific formulation. They have shown a beneficial response in children<sup>3</sup> and adults<sup>4</sup> with atopic eczema. Nevertheless, the effect is usually temporary, with relapse after treatment is stopped. Even if the treatment is continued its effectiveness often wears off after a variable period, usually around six to 12 months.

The plant materials used in these controlled trials were *Akebia clematidis*, *Dictamnus dasycarpus*, *Glycyrrhiza uralensis*, *Ledebouriella seseloides*, *Lophatherum gracile*, *Paeonia lactiflora*, *Potentilla chinensis*, *Rehmannia glutinosa*, *Schizonepeta tenuifolia*, and *Tribulus terrestris*. All are listed in the Chinese pharmacopoeia and are accepted in China as recognised treatments for skin ailments.

These plants contain a pot pourri of chemicals, which are the expression of the major biosynthetic pathways in plants. Some of these compounds may have direct pharmacological actions at specific sites or may act as immunomodulating agents. Extracts of some of these plants exhibit an anti-inflammatory effect, and some have a sedative effect.<sup>5</sup> The root of the paeonia plant has analgesic and anti-inflammatory properties. It has been suggested that paeonol isolated from paeonia is an important active compound,<sup>6</sup> but it is not a constituent of *Paeonia lactiflora*, which is the species used in these particular eczema preparations.<sup>7</sup> *Glycyrrhiza uralensis* (licorice) is a common component of traditional Chinese formulations. It contains glycyrrhetic acid, which also has anti-inflammatory properties, and it has been shown to potentiate the effect of topically applied hydrocortisone.<sup>8</sup> This mixture of plant materials is therefore likely to have different pharmacological actions which are beneficial for the treatment of eczema. More than 30 pure chemical compounds have been isolated recently from these plants as part of a systematic investigation at the School of Pharmacy, London (J D Phillipson, personal communication).

There are now more than 600 clinics offering traditional Chinese medicine in the United Kingdom, and large numbers of parents are taking their children for this type of treatment, often in the misguided belief that this is a cure and that so called natural products are safe. It needs to be realised that the beneficial effect of traditional Chinese medicine for eczema is temporary. But of more concern are the reports of hepatotoxicity associated with Chinese herbal remedies<sup>9-12</sup> and the fact that in most cases liver function is not monitored.

Some of these plant materials are variable in the yields of their constituents; the paeoniflorin content of 12 samples of red peony root (*Paeonia lactiflora*) bought in London varied from 0.01% to 4.5%.<sup>7</sup> This raises questions about the standards and quality assurance procedures used for Chinese medicinal plants available in the United Kingdom. There is also evidence that some practitioners are supplying "herbal creams," which, unknown to the patient or parents, are potent topical steroid ointments.<sup>13,14</sup> Another worrying aspect is that often practitioners automatically put children with eczema on a strict unsupervised diet, which includes avoiding dairy products, and this could potentially give rise to nutritional problems, especially in infants. Until recently a preparation containing Chinese herbs (Zemaphyte; Phytopharm, Brough) was available on prescription, but this was withdrawn in the latest round of prescribing restrictions.

There is no doubt that some of the plant materials used by the Chinese for treating eczema have a significant beneficial effect and in selected cases have proved to be superior to Western treatment. At present, however, this type of treatment should be under strict medical supervision and restricted to those with severe eczema unresponsive to conventional treatment. With future research, it is possible that from these plants new and better standardised treatments for atopic eczema will be developed. In the meantime there is a need to protect patients from harm, to provide families with information, and, most importantly, for government intervention to regulate these practices.

JOHN HARPER  
Consultant in paediatric dermatology

Hospital for Sick Children,  
Great Ormond Street,  
London WC1 3JH

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## European directive on confidential data: a threat to epidemiology

### *Extend to research the exemptions that apply to journalism*

At the end of last year the *BMJ* published two studies by Barker and colleagues, on the relation between growth in utero and serum cholesterol concentration in adult life<sup>1</sup> and mortality from cardiovascular disease.<sup>2</sup> The first study used records from a hospital in Sheffield from 1939-40 on weight, length, and the circumference of the head, chest, and abdomen at birth. The second used midwives' and health visitors' records from Hertfordshire from 1911 onwards on birth weight, infant feeding, and weight at 1 year. Both sets of records included enough personal identification to enable the researchers to trace the subjects' deaths or addresses four to eight decades later. Most people would agree that these studies are valuable and have major public health implications. Nevertheless, record linkage studies like these are potentially under threat from a proposed European Union directive on confidential data.

The draft directive was first proposed in 1990 and is now in its second version,<sup>3</sup> with amendments being negotiated among the member states. The articles that cause problems for epidemiology include limits on how long data may be kept; the requirement for written consent before special categories of data, including data on health, are processed; the requirement that the subject of the data should be told about disclosure of data to a third party; the subject's right to access to the data; and the obligation to notify the supervisory authority before any data are processed.

The directive states that personal data should be kept in an identifiable form for no longer than is necessary for the purposes for which they were recorded. Member states may make provisions for personal data to be preserved for historical, statistical, or scientific use. Processing of data on health is prohibited unless the subjects concerned have given their written consent. It is, however, possible for member states to make exemptions to this restriction on grounds of important public interest.

But take the example of abdominal circumference used in the study of Osmond *et al.*<sup>2</sup> Those who recorded the data in 1939-40 would probably not have foreseen that it might be a predictor of the main cause of death half a century later. Would the information have been recorded for all births if the mothers' written consent had been required? Would these data have been safeguarded? Would linkage have been possible with a national register of the cause of death?

If the proposed directive had been implemented in the restrictive way that is currently being proposed then the answer to these questions would probably be no. So why is the European legislation potentially so restrictive? The directive is based on the premise that the establishment of the single European market will substantially increase cross border flows of personal information. The level of protection of that information must be the same in all member states—and the directive seeks to ensure a high level of protection.

Protecting personal privacy in a market with free flows of information is an aim that most people would support. But other rights are also important, and the directive takes some account of the conflict that may arise between opposing civil rights in that it requires states to make exemptions from the restrictions of the directive for the press and media.

As Westrin and Nilstrun argue on p 522,<sup>4</sup> citizens should also have the right to use research and statistics as tools to guide their actions. But the extent of the potential conflict between privacy and the need for research was not realised when the directive was first proposed. Criticisms of the directive from epidemiologists, among others, have brought the extent of the conflict to light.<sup>5-7</sup>

To reconcile the right to privacy with the need for research the exemptions should be extended to allow personal data to be processed for research of public interest. This would then allow data to be kept for longer than their immediate purpose and to be processed without specific consent being obtained. Such an exemption would accord with the regulations for research that apply to public registers in Denmark and would remove much of the threat to epidemiology contained in the directive.

What is more difficult to ensure is that data originally processed for purposes other than research are kept for the future. It is hard to foresee which data will be valuable in 50 years' time. Nevertheless, an important step forward would be to make it compulsory for member states to ensure the preservation of potentially valuable personal data in both the private and public sectors.

The European directive is not, however, the only threat to epidemiology. Threats also come from individual national agencies defending the right to privacy, even in countries that have a strong tradition of epidemiological research, such as the Nordic countries.<sup>8</sup> The best way for epidemiologists to fight against these trends is steadily to prove the value of their research.

ELSEBETH LYNGE  
Head of Department

Danish Cancer Society,  
DK-2100 Copenhagen,  
Denmark

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